Welcome to ST055 Engine Electronics!

ST055 Engine Electronics is 4 days in length.

This handout is representative of selected 6, 8, and 12 cylinder Engine Management Systems from 1998 to present. The handout serves two purposes; Instructor lead training and "stand alone" system reference material for the BMW Technician.

Obviously, all of the material in the handout can not be covered in 4 days, therefore a system will be selected to cover the basic required information. The information from other systems will cover the differences or variants that make them unique. Where possible, use the latest diagnostic equipment and DISplus/GT1 software programs.

Objectives

The Instructor will familiarize the BMW Technicians with an understanding of the current Engine Electronics Systems and diagnostic skills. Also the Technicians will perform hands on practicals in the shop to ensure participation in diagnosis and component testing.

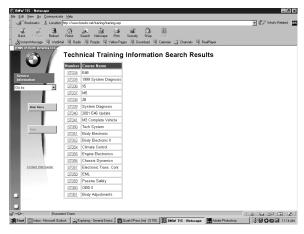
Objectives are provided on page 2 of each system to guide you to the key learning points of each module. Review questions are provided at the conclusion of each module to verify that you achieve the learning objectives during the course. A final test will be given at the end of the course.

It is very important to study the content which will assist you with important "on the job" information and successful completion of this course.

As a Mention . . .

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The chart shown below is a quick reference of BMW Engine Management Systems by application to BMW models, engines and model years. This will help you to get familiar with the systems by identifying the correct version that you are diagnosing.

Engine Management Control Versions

VERSIONS	MODEL	ENGINE	MODELYEAR
M1.2	E32 / M5	M70/S38	M70 = 1988 - 1999 S38 = 1991 - 1993
M1.7	E31 / E32	M70	1991 - 1994
M1.7	E30	M42	1990 - 1993
M1.7	E36	M42	1992
M1.7	E36	M42 / DISA	1992 - 1995
M1.7.1	E31	S70	1994 - 1995
M1.7.2	E36	M42 / DISA	1995
M3.1	E34	M50	1991 - 1992
M3.1	E36	M50	1992
M3.3	E32	M60	1993 - 1994
M3.3	E31 / E34	M60	1994 - 1995
M3.3.1	E34 / E36	M50 TU	1993 - 1995
M5.2	E36 / Z3	M44	1996 - 1998
M5.2	E31 / E38 / E39	M62 / M73	1995 - 1997
MS41.1	E36 / E39 / Z3	M52	1996 - 1998
MS41.2	E36 M3	S 52	1996 - 1998
M5.2.1	E38 / E39	M62/M73	1998 - 1999
* MS42	E46 / E39 / Z3	M52TU	1998 - 2000
* MS43	E46 / E39 / E53 / Z3	M54	E46 2001 - 2002 Z3 2001 - 2002 E39 2001 - 2003 E53 2001 ->
ME 7.2	E39 / E38 / E53	M62TU	1999 - 2001
MS S52	E39 (M5) E52 (Z8)	S62	M5 1999 - 2003 Z8 2000 - 2003
MS S54	E46 (M3)	S 54	2001 →
Bosch = M, Siemens = MS		* = Sys	stems covered in this course

Engine Management Control Versions

VERSIONS	MODEL	ENGINE	MODEL YEAR	
*MS45	E85	M54	2003 →	
*MS45	E83 all except M54B30 auto	M54	2003 →	
*MS45.1	E83 with M54B30 auto	M54	2003 →	
*MS45.1	E46	M54	2003 →	
*MS45.1	E46	M56 SULEV	2003 →	
*ME 9.2	E65/66	N62	2002 - 2003	
*ME 9.2.1	E53 / E60 / E63 / E64 / E65 / E66	N62	2004	
*ME 9.2.2	E53 / E60 / E63 / E64 / E65 / E66	N62	2005 →	
*MED 9.2.1	E66	N73	2003 →	
Bosch = M, Siemens = MS * = Systems covered in this course				